

The opportunities of mobile communications are huge. We need to seize them.⁷⁴

Further, as the Commission concluded in the *Fifteenth Mobile Competition Report*, construction of “a satellite/terrestrial 4G mobile broadband network . . . will help enhance competition among current mobile wireless providers.”⁷⁵ This is consistent with the Commission’s sentiment, offered in several wireless competition reports, that MSS operators offering “high-speed data services, especially in connection with terrestrial networks using their Ancillary Terrestrial Component (ATC) authority[,] . . . could potentially enhance competition in the provision of mobile terrestrial wireless services.”⁷⁶

The market for mobile voice, low-speed data, and high-speed data services is occupied today primarily by four nationwide incumbents, two of which are now proposing to merge. Together, these providers boast over 273 million subscribers nationwide as of 2010 and have an overwhelmingly commanding presence in mobile voice services.⁷⁷ And the level of concentration in the mobile wireless services industry, including CMRS, is at a high point and still increasing.⁷⁸ This consolidation is a major factor as to why the Commission has not been able to conclude that effective competition exists with respect to mobile wireless services, including CMRS. As Commissioner Copps has remarked, this consolidation amounts to “darkening clouds over the state of mobile competition” and requires the Commission to

⁷⁴ Julius Genachowski, Chairman, FCC, Remarks on Spectrum as Prepared for Delivery, White House (Apr. 6, 2011).

⁷⁵ *Fifteenth Mobile Competition Report* ¶ 39 n.102 (quoting *Harbinger-SkyTerra Order*, 25 FCC Rcd. at 3087 ¶ 62).

⁷⁶ *Id.* ¶ 39.

⁷⁷ *See id.* ¶ 31 & Table 3.

⁷⁸ *Id.* ¶¶ 2, 51-52 & Table 9.

“examine areas where [it] can act to encourage mobile competition.”⁷⁹ This concentration is only likely to increase further if plans for two of the four largest providers to merge are consummated because such a transaction would “produce the single largest carrier, with an estimated 43 percent market share; at that point, the top two carriers would control almost 80 percent of the market.”⁸⁰ Likewise, the provision of high-speed data services is dominated today by wireline cable companies and telephony providers. The role of the major CMRS providers in high-speed data services is also in the ascendancy and will only expand as 4G rollouts continue. The new, nationwide competition that a successful MSS/ATC deployment by DISH will introduce to CMRS providers will help offset increasing consolidation among terrestrial mobile broadband incumbents.

The reverse also is true. DISH will be subject to competitive pressure from incumbent CMRS carriers even if it proves unable to bring competitive pressure to bear upon these legacy operators. CMRS providers will continue to constrain the prices MSS/ATC operators can charge for their services. The ubiquitous availability of 3G services, and the coming near-ubiquity of 4G services, offered by the major CMRS providers mean that MSS/ATC providers will face direct competition nationwide.

Moreover, a combination of DBSD’s and TerreStar’s spectrum would create MSS spectrum holdings far below the levels held by major CMRS carriers and the levels that the Commission evaluated in the *Harbinger-SkyTerra Order*. As DISH noted already in its application to acquire control over DBSD, if TerreStar and DBSD were to be combined, the

⁷⁹ *Id.* at 305 (Commissioner Copps, concurring).

⁸⁰ *See, e.g.*, DISH Petition to Deny AT&T–T-Mobile Merger at 4; Sprint Nextel Corporation, Petition to Deny, Applications of AT&T Inc. and Deutsche Telekom AG, For Consent to Assign or Transfer Control of Licenses and Authorizations, WT Docket No. 11-65, at 8 (filed May 31, 2011).

combined spectrum of TerreStar and DBSD would total only 40 MHz and, even when adding Manifest's 6 MHz of E Block 700 MHz spectrum (which does not provide national coverage, given that Manifest's 700 MHz holdings do not include rights in the nation's largest metropolitan regions), would total only 46 MHz of spectrum. This is less than half of the 95 MHz CMRS spectrum screen that the Commission uses in wireless acquisitions as a threshold to determine if a concentration warrants additional competitive inquiry.⁸¹ It is an even smaller fraction of the spectrum than the large CMRS carriers have at their command in virtually every local market. Finally, it is significantly less than the spectrum that Harbinger had an interest in as a result of the *SkyTerra* proceeding (as much as 86 MHz).⁸²

3. Fixed-Satellite Broadband Access

The recent acquisition of Hughes by DISH's affiliate EchoStar will not lead to competitive harm because Hughes's FSS broadband access service is not currently a full substitute for mobile broadband services to be provided over the 2 GHz MSS spectrum. The services that are offered, or could be offered in the future, by MSS and FSS providers are at best only imperfect substitutes for each other. The two services are fundamentally different: one is a fixed service; the other is a mobile one. While MSS/ATC service could have fixed uses, MSS

⁸¹ AT&T Inc. and Centennial Communications Corp., *Memorandum Opinion and Order*, 24 FCC Rcd. 13915, 13936 ¶ 46 (2009).

⁸² *Harbinger-SkyTerra Order*, 25 FCC Rcd. at 3076-77 ¶ 29 (approving a transfer of control that gave Harbinger control over SkyTerra, one of the two L-band operators, in addition to its then extant interest in Inmarsat, the other L-band operator, and its status as the largest shareholder of TSN). LightSquared's authorization extends to as much of the 66 MHz of L-band spectrum as it can coordinate under the Mexico City Memorandum of Understanding. See *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz, the L-band, and the 1.6/2.4 GHz Bands*, *Memorandum Opinion and Order and Second Order on Reconsideration*, 20 FCC Rcd. 4616, 4629 ¶ 38 (2005) ("In the L-band, unlike other MSS bands, each MSS operator is licensed for the entire band, but must coordinate with other users of the L-band to determine which channels each MSS operator may use."). Further, it was only

spectrum is generally more appropriate for the provision of mobile voice and data applications to be complemented by a mobile terrestrial service at higher data rates, while the Hughes spectrum is better suited for fixed satellite broadband services at higher data rates than the satellite portion of MSS/ATC service.

IV. REQUESTED FLEXIBILITY

A. Waiver Requests and Criteria

To increase its flexibility to fully and efficiently utilize 2 GHz MSS spectrum to provide terrestrial mobile broadband while continuing to provide a robust satellite offering, TerreStar requests certain waivers of the ATC rules addressed herein.

The Commission may waive its rules for good cause shown, particularly where strict compliance with a rule is inconsistent with the public interest when taking “into account considerations of hardship, equity, or more effective implementation of overall policy,”⁸³ especially when deviation on an individual basis does not require “evisceration of a rule by waivers.”⁸⁴ The Commission’s grant of these waivers will enable DISH to make commitments regarding its terrestrial mobile broadband network and service deployments.

First, consistent with FCC precedent,⁸⁵ the Applicants request a waiver of the integrated service requirement to allow DISH to offer dual-mode terminals to all customers who want them, but make single-mode terrestrial terminals available to customers who do not need or desire the satellite function. *Second*, the Applicants request a waiver of the spare satellite requirement. *Third*, the Applicants request that the Commission harmonize certain regulatory requirements

subsequent to approval of the SkyTerra acquisition that Harbinger divested its interest in Inmarsat. As for TerreStar, its authorization covers 20 MHz in the 2 GHz MSS band.

⁸³ 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

⁸⁴ *WAIT Radio*, 418 F.2d at 1159.

applicable to TerreStar and DBSD by extending across the entire 2 GHz MSS allocation various waivers of the FCC's rules previously obtained by DBSD.

The Commission should act here on the National Broadband Plan's recommendation that "[t]he FCC should take actions that will optimize licensee flexibility sufficient to increase terrestrial broadband use of MSS spectrum, while preserving market-wide capability to provide unique mission-critical MSS services."⁸⁶ Grant of these waiver requests will better serve the public interest and the goals of the Commission's MSS/ATC policy than would strict application of the ATC rules. DISH emphasizes that it is asking for a waiver of the Commission's rules in the individual circumstances of this case, in light of its plan, the availability of the GENUSTM phone and its future iterations, the unique features of the 2 GHz band and its existing licensees, and DISH's commitment to MSS services. It is not asking for the application of new or different rules for MSS/ATC services.⁸⁷

B. "Integrated Service" Requirement

The Applicants request that the Commission waive application of the ATC "integrated service" rule to permit TerreStar and DISH to provide dual-mode terminals to customers who want them, and single-mode terrestrial terminals to customers who do not want the satellite function. Allowing TerreStar and DISH to provide single-mode terrestrial terminals to customers who have no need for satellite functions will achieve significant public benefits, and will do so by better serving the important, underlying policy. TerreStar and DISH are committed

⁸⁵ See *LightSquared ATC Order*, 26 FCC Rcd. 566.

⁸⁶ National Broadband Plan at 87.

⁸⁷ Compare *WAIT Radio*, 418 F.2d at 1153 (noting that the Commission may grant a waiver of its rules for good cause shown), with *Cities of Anaheim, Riverside, Banning, Colton and Azusa, California v. FERC*, 723 F.2d 656, 659 (9th Cir. 1984) (holding that an agency may not use an adjudication to circumvent the Administrative Procedure Act's rulemaking procedures, by, for example, amending a rule).

to securing the opportunity to deploy a terrestrial broadband network and will provide substantial satellite service – however, relief from the integration requirement is an important component of DISH’s plan.

Because DISH now intends to acquire both TerreStar’s and DBSD’s authorizations, satellites, and facilities, DISH will be able to offer consumers choice by continuing to make available the existing dual-mode GENUS™ phone (or a successor device) to customers who want the satellite function, and also make available single-mode devices (terrestrial only) for other customers. Thus, rather than severely restricting consumers’ choice of devices, DISH plans to provide customers with greater choice in devices according to their preferences. Furthermore, DISH will take steps to ensure that customers are aware that both satellite and integrated, satellite-terrestrial service options are available to them.

Today, a mobile voice and data provider’s ability to attract customers depends in large measure on its ability to provide its customers with the types of devices that best suit their needs. In a world of lighter-and-smaller-is-better, consumers prefer lighter weight handsets with longer battery life. In addition, the requirement to make every device dual-mode severely limits a provider’s ability to enter into arrangements with multiple device and equipment manufacturers, thereby limiting consumer choice and severely impairing the business case economics.

Such a lack of choice compels consumers to shoulder the associated additional costs, while hampering the service’s competitiveness by significantly limiting DISH’s ability to attract customers. This does not make sense, particularly against the backdrop of increasing consolidation in the CMRS arena, and does not further the Commission’s goal of expanding the use of MSS/ATC service nationwide. To the contrary, it disserves the Commission’s well-established policy in favor of efficient use of the spectrum. Waiver of the integrated service rule

in these circumstances will better serve the underlying Commission policy of creating a robust MSS service than would strict adherence to it. As noted above, the flexibility sought will allow DISH to acquire the critical mass of MSS/ATC subscribers necessary to create a viable terrestrial service offering. That mass of subscribers, in turn, will allow DISH to support the integrated network upon which its MSS offering also depends, lessening the per-subscriber cost of maintaining the network. In other words, by helping to ensure the viability of DISH's MSS/ATC service through the provision of flexibility, the Commission will also help ensure a viable and substantial MSS service.

Finally, as detailed below, if it is awarded the flexibility requested in this Application, DISH is also prepared to commit to other significant measures to ensure that the purpose of the integrated service requirement will be met. Among other things, DISH can commit to ensuring a sufficient amount of satellite capacity to support a nationwide MSS service. In addition, DISH can commit to a realistic terrestrial mobile broadband network buildout schedule that would provide MSS/ATC service to millions of Americans and that would be consistent with FCC precedent and based upon buildout principles established in the Sprint/Nextel and Sprint/Clearwire transaction decisions.⁸⁸ Furthermore, the network will be technically integrated, with all network traffic, whether terrestrial or satellite, being processed and handled by the same integrated network and support systems.

In the National Broadband Plan, the Commission rightly observed that its gating criteria had "made it difficult for MSS providers to deploy ancillary terrestrial networks."⁸⁹ This

⁸⁸ Nextel Commc'ns, Inc., and Sprint Corp., *Memorandum Opinion and Order*, 20 FCC Rcd. 13967 (2005) ("*Sprint-Nextel Order*"); Sprint Nextel Corp. and Clearwire Corp., *Memorandum Opinion and Order*, 23 FCC 17570 (2008) ("*Sprint-Clearwire Order*").

⁸⁹ National Broadband Plan at 88.

mitigates for flexible application of the integrated service requirement and favorable consideration of this waiver request, subject to the safeguards described above.

C. Spare Satellite Requirement

Applicants also request a waiver of the Commission's spare satellite "gating" requirement.⁹⁰ Under that rule, an MSS/ATC operator must have a spare satellite available on the ground within one year after commencing ATC operations and launch that satellite in the first commercially reasonable launch window following the failure of an MSS satellite.⁹¹ The Commission adopted the spare satellite rule "to ensure that there would be redundancy of satellite service, while at the same time, retaining ATC operations as an 'ancillary' service in the event of launch failures or satellite malfunctions."⁹²

A waiver of the spare satellite requirement in this case will not undermine the purpose of the rule. That purpose is to ensure that MSS operators continue investment and innovation in their satellite systems, and that they move quickly to restore service following a satellite failure.⁹³ The highest risk of such failure occurs during the first year after launch, which covers the risk areas of launch, deployment, and early life failures. The TerreStar-1 satellite has passed that risk period, meets its specifications, remains in good health, and is expected to provide uninterrupted service for the rest of its full design life of 15 years. As a result, the need to launch a replacement satellite before the satellite's end of life is already only a remote possibility.

⁹⁰ 47 C.F.R. § 25.149(b)(2).

⁹¹ *Id.*

⁹² Mobile Satellite Ventures Subsidiary LLC, Application for Limited Waiver of On-Ground Spare Satellite Rule, *Memorandum Opinion and Order*, 22 FCC Rcd. 20548, 20549 ¶ 4 (2007) ("*MSV Waiver Order*").

⁹³ Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands, *Report and Order and Notice of Proposed Rulemaking*, 18 FCC Rcd. 1962, 2006 ¶ 81 (2003).

Moreover, given the significant capacity available as a result of potential interoperabilities between TerreStar's T-1 and DBSD's G-1 satellites, it is likely that any capacity shifting or redeployment that might be needed for business concerns could be accommodated with limited additional support.

As noted above, DISH plans to deploy an MSS/ATC system using the full 40 MHz of MSS spectrum with in-orbit active and spare capacity on TerreStar's T-1 satellite (currently positioned at 111° W.L.) and DBSD's G-1 satellite (currently positioned at 92.85° W.L.). As a result, post-transaction, DISH will have two state-of-the-art satellites in orbit and capable of providing MSS service in the S-Band over all 50 states, Puerto Rico, and the U.S. Virgin Islands.

On the other hand, requiring DISH to complete and earmark two satellites as spares – one for each of DBSD's and TerreStar's authorizations – would be to require expenditure of over half a billion dollars and would serve no discernible policy. Worse, strict compliance with the spare satellite requirement would only serve to divert DISH's resources away from developing its hybrid MSS/ATC network. This is an unnecessary and unreasonable expense that would jeopardize the business case for entering the market in the first place. In particular, it would not increase the reliability of the MSS service to be provided and would, in fact, unnecessarily lengthen any potential service outage. Indeed, as the Commission noted in the *MSV Waiver Order*, launch of a spare satellite may take as long as 18 months,⁹⁴ during which time customers would have limited or no service.

This is not a case in which a nascent satellite operator is undertaking its first-ever satellite venture on a shoe-string. Managing a satellite fleet is at the core of DISH's business. DISH has a long history of building, launching, and operating satellites. DISH currently ensures continued

⁹⁴ *MSV Waiver Order*, 22 FCC Rcd. at 20550 ¶ 8.

operations of a satellite system relied upon by approximately 14 million households in a market where interruptions of service can be fatal to customer satisfaction. DISH has consistently done so without being subject to a ground spare requirement. This request amounts to no more than allowing DISH the flexibility to do with its MSS satellites what it does on a daily basis with its DBS satellites.

The Commission waived the spare satellite rule in the *MSV Waiver Order* based on a showing that each of the two operational L-band satellites would provide sufficient backup capacity for the other.⁹⁵ The Commission concluded that a waiver in that case “will strike an appropriate balance between ensuring continuity of satellite service to customers and minimizing cost burdens on the satellite operator.”⁹⁶ A waiver in the present circumstances is equally justified, as strict compliance with the rule would not serve the public interest, and the requested waiver more effectively implements the Commission’s overall policy.

D. Harmonization of TerreStar and DBSD Regulatory Treatment

In conjunction with this Application, Applicants request that the Commission harmonize the ATC service rules applicable to the 2 GHz band by granting certain waivers of the ATC base station and mobile terminal technical requirements, most of which have already been granted to DBSD and requested in similar form by TerreStar in a modification filed on June 27, 2010.⁹⁷ Specifically, Applicants request the following waivers, all but one of which (the Section 25.252(b)(2) request) were previously requested in the referenced modification request:

⁹⁵ *Id.* at 20550-51 ¶¶ 8, 12.

⁹⁶ *Id.* 20551 ¶ 12.

⁹⁷ See TerreStar Networks Inc., File No. SES-MOD-20100727-00963 (filed July 27, 2010) (“TerreStar Modification Request”) (requesting modification of its ATC authority to harmonize waivers with DBSD).

Section	Rule	Waiver Request
25.252(a)(1)	[ATC base stations shall not] Exceed EIRP of -100.6 dBW/4 kHz for out-of-channel emissions at the edge of the MSS licensee's selected assignment.	[ATC base stations shall not] Exceed an out-of-channel emissions limit at the edge of the MSS licensee's selected assignment specified by an attenuation of the transmitter power (P), in watts, by a factor of at least $43 + 10 \log (P)$ dB. ⁹⁸
25.252(c)(2)	Emissions on frequencies lower than 1995 MHz and higher than 2025 MHz shall be attenuated by at least $70 + 10 \log P$. Emissions in the bands 1995-2000 MHz and 2020-2025 MHz shall be attenuated by at least a value as determined by linear interpolation from $70 + 10 \log P$ at 1995 MHz or 2025 MHz, to $43 + 10 \log P$ dB at the nearest MSS band edge at 2000 MHz or 2020 MHz respectively.	Emissions on frequencies higher than 2020 MHz shall be attenuated by at least $43 + 10 \log (P)$ dB. Emissions in the band 1995-2000 MHz shall be attenuated by at least a value as determined by linear interpolation from $70 + 10 \log (P)$ dB at 1995 MHz, to $43 + 10 \log (P)$ dB to the MSS band edge at 2000 MHz.

⁹⁸ Applicants request relief only to the same extent as the Commission chose to grant relief to DBSD – namely, only outside 133 km from a U.S. government earth station. *See* Letter from Adam Krinsky, Counsel to TerreStar Networks, Inc., Debtor-in-Possession, to Marlene H. Dortch, Secretary, FCC, *filed in* SES-MOD-20100727-00963 (July 18, 2011).

25.252(c)(4)	Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.	Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
25.252(a)(2)	[ATC base stations shall not] Exceed a peak EIRP of 27 dBW in 1.23 MHz.	[ATC base stations shall not] Exceed an EIRP of 32 dBW/MHz.
25.252(a)(3)	[ATC base stations shall not] Exceed an EIRP toward the physical horizon (not to include man-made structures) of 25.5 dBW in 1.23 MHz.	Waive rule. DISH's unification of the band eliminates concern over inter-party operational interference.
25.252(a)(5)	[ATC base stations shall not] Exceed an aggregate power flux density of -51.8 dBW/m ² in a 1.23 MHz bandwidth at all airport runways and aircraft stand areas, including takeoff and landing paths and all ATC base station antennas shall have an overhead gain suppression according to [Rule 25.252(a)(8)].	Waive rule. DISH's unification of the band eliminates concern over inter-party operational interference.

25.252(a)(8)	[ATC base stations shall not] Use ATC base station antennas that have a gain greater than 17 dBi and must have an overhead gain suppression according to [Table 1.]	Waive rule. DISH's unification of the band eliminates concern over inter-party operational interference.
25.252(b)(2)	[ATC mobile terminals shall] Limit out-of-channel emissions at the edge of a MSS licensee's selected assignment to an EIRP density of -67 dBW/4 kHz.	[ATC mobile terminals shall] Limit out-of-channel emissions at the edge of a MSS licensee's selected assignment to a limit specified by an attenuation of the transmitter power (P), in watts, by a factor of at least $43 + 10 \log(P)$ dB.

There is good cause for granting the requested waivers here. Indeed, these waivers are identical to those requested by DBSD and subsequently approved by the Commission on January 15, 2009,⁹⁹ and the Applicants agree to abide by the same limitations, restrictions, and conditions applicable to DBSD pursuant to its waiver, including that certain of these waivers are potentially subject to the Commission's adoption of service rules in the adjacent AWS bands. As a result, the Commission's rationale for granting those identical waivers applies with equal force here.

As described in TerreStar's previous modification request, the requested waivers of the base station EIRP spectral density, peak EIRP limit, EIRP toward the horizon, power flux density at runways, and overhead rules – laid out in Section 25.252(a)(1)-(3), (a)(5), and (a)(8) – create no interference concerns, largely because they were created to protect certain 2 GHz MSS operators from receiving interference from other operators.¹⁰⁰ Through this application, however, DISH now intends to unify the band by combining DBSD's and TerreStar's 2 GHz MSS holdings. This eliminates any inter-party operational interference concerns that may have

⁹⁹ See *DBSD ATC Order*, 24 FCC Rcd. at 185-89, 192-96 ¶¶ 41-49, 58-64, 69.

¹⁰⁰ TerreStar Modification Request at 7-11. With respect to Section 25.252(a)(1), the Applicants recognize the interests of U.S. Government agencies in protecting government earth stations from interference, and TerreStar is working with the National Telecommunications and Information Administration and related federal agencies on an operator-to-operator agreement.

otherwise arisen. As a result, the requested waivers will relieve DISH and TerreStar of these restrictions without threat of interference concerns.

As also explained in TerreStar's previous request for waiver of the mobile terminal attenuation requirements, a waiver of Section 25.252(c)(2) will not create significant risk of interference above the uplink band edge at 2020 MHz.¹⁰¹ The Commission has already granted DBSD this relief, and given that TerreStar's spectrum is some 10 MHz further from the uplink band edge at 2020 MHz, it will be, if anything, even easier to design the network to ensure that the requested limits can be met from this portion of the S-band.

Further, the requested waiver of the emission measurement requirement found in Section 25.252(c)(4) merely asks for an alternative measurement,¹⁰² which is currently used for PCS and AWS-1 terminals.¹⁰³ The Commission previously found that use of this alternative measurement would "have no adverse consequences" and constituted "the most appropriate way of measuring out-of-band emissions into adjacent spectrum."¹⁰⁴ Nothing has occurred since the Commission granted DBSD's waiver to alter this determination.

Finally, TerreStar adds one additional waiver request beyond those in its previous modification application: waiver of the limit on out-of-channel emissions under Section 25.252(b)(2). As noted above, DISH plans to unify the band, thereby eliminating any concern

¹⁰¹ TerreStar Modification Request at 12-13; Declaration of Stephen Thompson ¶ 8.

¹⁰² Although the Commission has adopted an OOB limit for ATC base stations under Section 25.252(a)(1), the measurement technique to be used to measure compliance with the rule is not specifically enumerated. The Applicants intend to demonstrate conformance with the base station limit using the same emission measurement technique that the Commission has previously approved to measure compliance with the equivalent requirement for handsets in the band. Declaration of Stephen Thompson ¶ 10; *DBSD ATC Order*, 24 FCC Rcd. at 195 ¶ 64 (citing 47 C.F.R. §§ 24.238(b), 27.53(g)(1)). The Applicants request that the Commission clarify that this measurement procedure is acceptable.

¹⁰³ TerreStar Modification Request at 13; Declaration of Stephen Thompson ¶ 9.

over inter-party operational interference. Further, as the Commission noted in its grant of DBSD's waiver request, "attenuating transmitter power at the edge of its terminal transmission band by at least $(43 + 10 \cdot \log(P) \text{ dB})$ [,] while limiting in-band power spectral density as required by Section 25.252(b)(1)," effectively limits the power spectral density of the band-edge "to essentially the same extent" as the previous -67 dBW/4 kHz limit.¹⁰⁵ The Commission has already granted the identical waiver to DBSD for similar reasons, and its rationale remains sound.¹⁰⁶

Just as when the Commission granted them to DBSD, grant of these requested waivers remains in the public interest. Moreover, grant of these waivers will now produce added benefit by allowing DISH to better and more efficiently use the ATC authority granted to DBSD and TerreStar in harmony. And as stated in TerreStar's previous request, the Applicants agree to accept the same conditions the Commission attached to the grant of these waivers to DBSD.

E. DISH's Commitments if Flexibility Is Granted

1. Buildout Commitments

In addition to its commitment to provide nationwide MSS service, if the above requested flexibility is granted, DISH will also make certain substantial terrestrial network deployment commitments intended to increase wireless broadband competition, including in rural areas. Specifically, at the commencement of its terrestrial wireless operations, DISH plans to deploy the most advanced wireless broadband service using the LTE Advanced standard. The requested flexibility is, in fact, critical to DISH's ability to obtain base station equipment and handsets. Chipset and other manufacturers might not be willing to develop and supply devices for ATC

¹⁰⁴ *DBSD ATC Order*, 24 FCC Rcd. at 195 ¶ 64; Declaration of Stephen Thompson ¶ 11.

¹⁰⁵ *Id.* at 194 ¶ 62.

¹⁰⁶ *Id.*

service in the S-band without certainty that DISH has obtained the necessary regulatory approvals to proceed with its plan.

Based on the projected availability of the LTE Advanced standard and related technology, and assuming that DISH obtains all of the flexibility requested in this Application, DISH is prepared to work with the Commission to develop a reasonable, attainable buildout schedule keyed to commercial availability of the LTE Advanced standard. DISH is committed to developing a buildout schedule consistent with FCC precedent and based on the buildout principles established in the Sprint/Nextel and Sprint/Clearwire transaction decisions.¹⁰⁷

2. Integrated Network, Sufficient Satellite Capacity

Additionally, and also contingent upon the grant of the requested flexibility, DISH commits to creating a technically integrated network in which all network traffic, whether terrestrial or satellite, is processed and handled by the same integrated network and support systems. Moreover, to ensure a continuing robust MSS service, DISH will ensure sufficient satellite capacity is available to support a viable nationwide MSS offering.

V. PROCEDURAL REQUESTS

A. Permit-But-Disclose Status

The Applicants request that the Commission designate the *ex parte* status of this proceeding as “permit-but-disclose” under the Commission’s rules. Doing so will facilitate the development of a complete record and is consistent with Commission decisions in other transactions.

¹⁰⁷ See generally *Sprint-Nextel Order*, 20 FCC Rcd. 13967; *Sprint-Clearwire Order*, 23 FCC Rcd. 17617.

B. Consolidation with TerreStar's Application for Modification of ATC Authority

The Applicants have filed a contemporaneous request to modify the TerreStar ATC authorization,¹⁰⁸ to the extent necessary, in conformity with any grant of the waivers requested herein. The public interest justifies these modifications for the same reasons that were discussed above in connection with the waiver request.¹⁰⁹ Applicants request that the Commission consider and act on the modification request and this Application jointly and concurrently.

C. Consolidation with DBSD's Transfer and Modification Applications

Applicants request that the Commission consolidate its review of this Application with that previously submitted by DISH for approval of the transfer of control of DBSD, as well as with the amendment and modification requests being filed today by DISH and DBSD.¹¹⁰ Consolidated review of these applications will minimize the burden on both the Commission and the Applicants, and provide the Commission with the benefit of a more complete record and context. Indeed, the DISH-DBSD Application, filed months before the Agreement was entered into by the Applicants, discussed the competitive effects and benefits of that transaction with reference to DISH's interest in both DBSD and TerreStar.¹¹¹ An evaluation of the benefits of the transaction requires precisely this "holistic" view.

VI. CONCLUSION

The transaction complies with all applicable Commission rules and regulations and will serve the public interest. It will enhance competition and help a company distribute meaningful

¹⁰⁸ TerreStar License Inc, Debtor-in-Possession, SES-LIC-20061206-02100 (granted Dec. 13, 2010) (Call Sign E060430).

¹⁰⁹ See discussion, *supra*, Part IV.

¹¹⁰ See DISH-DBSD Application.

¹¹¹ *Id.* at 16-17.

recoveries to its creditors in its bankruptcy proceedings. These public interest benefits are not undermined by any threat, either to any Commission objective or to competition. Consequently, the Applicants respectfully request that the Commission grant the Application promptly and provide for any other authority that the Commission finds necessary or appropriate to enable the Applicants to consummate the proposed transaction.

Respectfully submitted,

/s/

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August 22, 2011

DECLARATION OF THOMAS CULLEN

I, Thomas Cullen, being over 18 years of age, swear and affirm as follows:

1. I make this declaration in support of the application for the transfer of the Federal Communications Commission authorizations held by TerreStar License Inc., Debtor-in-Possession ("TerreStar") to DISH Network Corporation's ("DISH") wholly owned subsidiary, Gamma Acquisition L.L.C. ("Gamma").

2. I am the Executive Vice President for DISH. I make this declaration based upon personal knowledge, information provided to me, and belief. I will provide a brief description of DISH's current business and then describe some of the public benefits I expect to come from DISH's acquisition of TerreStar's assets. DISH has also proposed to acquire control over DBSD North America, Inc. ("DBSD").

DISH'S INTEREST IN ACQUIRING TERRESTAR'S AUTHORIZATIONS

3. The TerreStar and DBSD transactions are synergistic. The benefits to the public from both of these are significantly greater than the benefits of each standing alone. DISH has been exploring the amount of spectrum necessary to fulfill the bandwidth demands of a mobile broadband service and to create a viable stand-alone provider. In this respect, DISH believes that each of the two 2 GHz Mobile-Satellite Service ("MSS") assignments (the "S-band") likely would not be enough, standing alone, to support a robust nationwide service. Although the combination of the two S-band assignments will yield a total of 40 MHz of spectrum and will allow DISH to compete to some extent against the terrestrial mobile broadband incumbents, DISH will potentially be facing other Commercial Mobile Radio Service ("CMRS") and MSS players with far more significant spectrum holdings. The ability to combine the S-band spectrum would, if coupled with the regulatory flexibility needed to implement DISH's plans as requested

in the Application, further enhance the effectiveness and competitiveness of DISH's proposed broadband service offering.

4. By bringing together these two 2 GHz MSS providers, DISH will be better positioned to meet rising demand for broadband services, relying on the forthcoming LTE Advanced standard to bring the most spectrum efficient technology to market and leapfrogging the technologies currently in use. These steps are necessary if DISH's service is to become at least a partial competitive substitute for services offered by CMRS carriers on a nationwide basis.

5. This new competitive service will, of course, be propelled by DISH's existing presence in the retail market. As a result of its experience in the Multichannel Video Programming Distribution ("MVPD") business, DISH has the resources, relationships, and experience to deploy an advanced MSS/Ancillary Terrestrial Component ("ATC") network in the S-Band that can potentially provide American consumers with innovative services and greater choice of broadband services. DISH is also poised to take advantage of its nationwide "bricks-and-mortar" network of sales, support, installation, customer service, and maintenance infrastructure to facilitate the deployment of a new service.

DISH'S CURRENT BUSINESS

6. DISH and its affiliate, EchoStar Corporation ("EchoStar"), have a proven record of technological innovation, business acumen, and superior customer service in the satellite industry. Over the past several decades, they have demonstrated in the video delivery market their engineering expertise to launch a satellite service from scratch, grow it to approximately 14 million subscribing households, and in turn provide effective competition against the dominant MVPD incumbents.

7. DISH's roots reach back more than 30 years when its Chairman, Charles W. Ergen, first entered the satellite television business as a distributor of C-band television satellite systems. DISH's predecessor in interest received its first DBS construction permit in 1989. Of the more than a dozen entities that obtained such permits, only DISH and one other company have succeeded. DISH launched its first satellite, EchoStar 1, on December 28, 1995, and began providing service in 1996. Many analysts questioned DISH's ability to reach the 1 million household milestone, yet it vaulted past 1 million subscribers in 1997 and today serves approximately 14 million subscribers.

8. DISH is now a publicly traded Fortune 200 company and consists of the entities that made up the subscription television business of the former EchoStar Communications Corporation (now known as DISH Network Corporation), founded in 1980 by Mr. Ergen, Cantey M. Ergen, and James DeFranco. Last year, DISH reported over \$12.6 billion in revenue and more than \$9.6 billion in total assets. DISH employs over 35,000 people in the United States.

9. ***Satellite Infrastructure, Services.*** From its 13 owned or leased geostationary satellites, DISH provides extensive entertainment programming, including more than 280 basic video channels, 60 Sirius Satellite Radio music channels, 30 premium movie channels, 35 regional and specialty sports channels, 2,800 local channels, 250 Latino and international channels, and 55 channels of pay-per-view content. DISH is the only satellite distributor to retransmit local-into-local television stations in all 210 of the nation's markets, and currently offers High Definition ("HD") local channels in more than 160 markets. In addition, DISH offers 215 national HD channels, the single largest HD offering by any MVPD in the nation.

10. To control its satellites and uplink content to them, DISH uses two principal uplink facilities, owned by EchoStar and located in Cheyenne, Wyoming and Gilbert, Arizona.

DISH also uses five regional uplink facilities, also owned and operated by EchoStar, that allow it to maximize the use of the spot-beam capabilities of certain owned and leased satellites. Programming content is delivered to these facilities by fiber or satellite, where it is then processed, compressed, encrypted, and then uplinked to satellites for delivery to consumers. DISH also has its own local “receive” facilities in most of the nation’s markets, established to collect local television stations’ signals, which are then sent to its aforementioned uplink facilities via fiber optic networks.

11. DISH has also moved to satisfy burgeoning demand for online content and marry online distribution to its “linear” distribution service. DISHOnline.com, for example, gives DISH subscribers the ability to watch television programs, movies, and clips online at no additional charge with their paid subscription and compatible equipment. DISHOnline.com offers more than 150,000 movies, television shows, clips, and trailers. DISH’s primary goal is to be the best at delivering video, anytime, anywhere. EchoStar’s Slingbox with its “placeshifting” technology is another natural fit for that goal, complementing the service that DISH provides its subscribers by empowering them to access their programming wherever they are via an encrypted Internet connection. Through its recent acquisition of most of the assets of Blockbuster Inc. (“Blockbuster”), DISH has augmented its TV and streaming offerings with additional content and delivery methods, including more than 100,000 movies, TV shows, and games available via digital delivery as well as through the mail; new titles available 28 days before Netflix or Redbox; with the added benefit of instant exchanges at participating neighborhood Blockbuster stores.

12. ***Engineering Experience.*** DISH’s extensive engineering experience will facilitate the melding of satellite and terrestrial wireless capabilities into a compelling consumer

service. DISH and EchoStar are responsible for numerous breakthroughs in satellite and wireless technology: the first to develop a UHF remote control; the first to offer a satellite receiver for less than \$200; the first to offer an integrated receiver descrambler for C-band satellite TV; the first to offer satellite television receivers with built-in digital video recorders (“DVRs”); the first to offer HD programming in 1080p; the first to offer a multi-room HD and DVR satellite receiver; and more. Currently, DISH’s wholly owned subsidiary, Manifest Wireless LLC, is conducting testing in Atlanta, Georgia on technology to utilize Manifest’s 700 MHz licenses, as well as on the technology for using the 2 GHz spectrum at issue in this Application.

13. ***Nationwide Customer-Oriented Infrastructure.*** DISH’s existing nationwide customer-interfacing infrastructure is also directly relevant to ensuring the highest and best use of the 2 GHz frequencies covered by this Application. DISH uses twelve internally operated or outsourced customer-service centers to handle calls from prospective and existing customers – including call centers in Arizona, Colorado, New Jersey, New York, Ohio, Oklahoma, Texas, Virginia, and West Virginia. DISH also operates four service centers in Colorado, South Carolina, and Texas, and three distribution centers in California, Colorado, and Georgia.

14. To sell its service, install its equipment, and ensure customer satisfaction, DISH has built and manages a network that would be difficult for any new service provider to replicate. DISH has developed partnerships with thousands of independent third-party retailers, local and regional consumer electronics stores, nationwide retailers, and telecommunications companies. New customers receive high quality installation service by one of over 5,000 installers employed by DISH and another 7,500 contractors, located nationwide, while existing customers receive support from maintenance and repair centers located across the nation. DISH’s Blockbuster

acquisition has further enhanced DISH's ability to reach consumers through 1,500 bricks-and-mortar retail stores spread across the country.

15. These investments have benefited consumers and ushered in effective competition in the subscription television market. DISH is known as the value leader among all MVPDs. The company has a reputation for keeping internal costs low in order to pass savings on to subscribers. DISH's single-minded focus on continually improving the customer experience has consistently earned it accolades from customer surveys.

16. **EchoStar.** EchoStar was "spun off" from DISH on January 1, 2008. EchoStar continues to provide DISH with considerable technical expertise and facilities both in satellite operations and the design of hardware and service solutions for DISH. EchoStar is the sole supplier of digital set-top boxes to DISH, is a key provider of engineering services to DISH, and is a major provider of core satellite capacity for DISH's DBS service. EchoStar also designs, develops, and distributes digital set-top boxes and related products, including its Slingbox "placeshifting" technology. It provides digital broadcast operations, including satellite uplinking/downlinking, transmission services, signal processing, conditional access management, and other services. EchoStar employs some 1,800 engineers, holds 76 patents, and has approximately 1,100 patent applications on file. Moreover, EchoStar recently acquired Hughes Communications, Inc., a leading provider of fixed satellite broadband and network management solutions to the consumer and business markets. That acquisition will enable EchoStar to improve the effectiveness and availability of fixed satellite broadband nationwide.

BENEFITS FROM THE MERGER AND DISH'S PLAN TO INCORPORATE TERRESTAR'S AUTHORIZATIONS INTO DISH

17. DISH plans to deploy an MSS/ATC system using the full 40 MHz of S-band spectrum with in-orbit active and spare capacity on TerreStar's T-1 and DBSD's G-1 satellites,

subject to grant of TerreStar's and DBSD's modification applications and waiver requests, and using the latest in satellite and terrestrial technologies. These broadband services will be offered over a single, technically integrated network for all satellite and terrestrial traffic. The offerings could consist of mobile, portable, or fixed broadband services individually or a combination thereof. DISH expects that the consumer equipment will include broadband-capable tablet computers, among other devices. Once the network is deployed, consumers will be able to use their devices for high-speed Internet access as well as a myriad of IP-based, over-the-top applications, including video. DISH anticipates offering broadband services both on a stand-alone basis and in a consumer-friendly bundle with its multichannel video services.

18. As part of its offering, DISH intends to continue supporting the GENUS™ handset phone (including, among other things, sales, marketing, technical assistance, and software and network maintenance) unless and until a new satellite/terrestrial hybrid device can be developed and deployed by DISH. Future iterations of the GENUS™ phone (or a successor device) may also feature improved interoperability with DBSD's G-1 satellite – the current GENUS™ already has a level of operability with that satellite.

19. This transaction represents an important first step in obtaining spectrum necessary to establish DISH as a viable provider of mobile broadband services. Although still modest in comparison to the holdings of many incumbent mobile broadband providers, the spectrum assignments contemplated by the TerreStar and DBSD transactions, taken together, provide an essential foundation for DISH's ability to compete against them.